



|   |                    |      |     |
|---|--------------------|------|-----|
| Product designation   | Power contactor    |      |     |
| Product type designation  | B115               |      |     |
| <b>Contact characteristics</b>  |                    |      |     |
| Number of poles   | Nr.                | 3    |     |
| Rated insulation voltage U <sub>i</sub> IEC/EN                              | V                  | 1000 |     |
| Rated impulse withstand voltage U <sub>imp</sub>                            | kV                 | 8    |     |
| Operational frequency   | min                | Hz   | 25  |
|   | max                | Hz   | 400 |
| IEC Conventional free air thermal current I <sub>th</sub>                   | A                  | 160  |     |
| Operational current I <sub>e</sub>  | AC-1 (≤40°C)       | A    | 160 |
|   | AC-1 (≤55°C)       | A    | 150 |
|   | AC-1 (≤70°C)       | A    | 110 |
|   | AC-3 (≤440V ≤55°C) | A    | 110 |
|   | AC-4 (400V)        | A    | 47  |
| Rated operational power AC-3 (T≤55°C)                                       | 400V               | kW   | 61  |
|   |                    |      |     |
| Rated operational power AC-1 (T≤40°C)                                       | 230V               | kW   | 57  |
|   | 400V               | kW   | 98  |
|   | 500V               | kW   | 129 |
|   | 690V               | kW   | 173 |
|   |                    |      |     |
| IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 1 poles in series | 75V                | A    | 160 |
|   | 110V               | A    | 100 |
|   | 220V               | A    | –   |
|   | 330V               | A    | –   |
|   | 460V               | A    | –   |
| IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 2 poles in series | 75V                | A    | 160 |
|   | 110V               | A    | 130 |
|   | 220V               | A    | 100 |
|   | 330V               | A    | –   |
|   | 460V               | A    | –   |
| IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 3 poles in series | 75V                | A    | 160 |
|   | 110V               | A    | 130 |
|   | 220V               | A    | 130 |
|   | 330V               | A    | 100 |
|   | 460V               | A    | –   |
| IEC max current I <sub>e</sub> in DC1 with L/R ≤ 1ms with 4 poles in series | 75V                | A    | 160 |
|   | 110V               | A    | 130 |
|   | 220V               | A    | 130 |

|  |                     |                  |                       |
|--|---------------------|------------------|-----------------------|
|  | 330V                | A                | 130                   |
|  | 460V                | A                | 100                   |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 1 poles in series |                     |                  |                       |
|  | 75V                 | A                | 140                   |
|  | 110V                | A                | 70                    |
|  | 220V                | A                | –                     |
|  | 330V                | A                | –                     |
|  | 460V                | A                | –                     |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 2 poles in series |                     |                  |                       |
|  | 75V                 | A                | 140                   |
|  | 110V                | A                | 100                   |
|  | 220V                | A                | 80                    |
|  | 330V                | A                | –                     |
|  | 460V                | A                | –                     |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 3 poles in series |                     |                  |                       |
|  | 75V                 | A                | 140                   |
|  | 110V                | A                | 120                   |
|  | 220V                | A                | 100                   |
|  | 330V                | A                | 80                    |
|  | 460V                | A                | –                     |
| IEC max current Ie in DC3-DC5 with L/R ≤ 15ms with 4 poles in series |                     |                  |                       |
|  | 75V                 | A                | 140                   |
|  | 110V                | A                | 120                   |
|  | 220V                | A                | 120                   |
|  | 330V                | A                | 120                   |
|  | 460V                | A                | 80                    |
| Short-time allowable current for 10s (IEC/EN60947-1)                 |                     | A                | 1100                  |
| Protection fuse  |                     |                  |                       |
|  | gG (IEC)            | A                | 200                   |
|  | aM (IEC)            | A                | 125                   |
| Making capacity (RMS value)  |                     | A                | 1300                  |
| Breaking capacity at voltage   |                     |                  |                       |
|  | 440V                | A                | 1300                  |
|  | 500V                | A                | 1100                  |
|  | 690V                | A                | 880                   |
| Resistance per pole (average value)                                  |                     | mΩ               | 0.3                   |
| Power dissipation per pole (average value)                           |                     |                  |                       |
|  | I <sub>th</sub>     | W                | 7.7                   |
|  | AC-3                | W                | 4                     |
| Tightening torque for terminals                                      |                     |                  |                       |
|  | min                 | Nm               | 10                    |
|  | max                 | Nm               | 10                    |
|  | min                 | I <sub>bin</sub> | 7.4                   |
|  | max                 | I <sub>bin</sub> | 7.4                   |
| Max number of wires simultaneously connectable                       |                     | Nr.              | 2                     |
| Conductor section  |                     |                  |                       |
|  | AWG/Kcmil           |                  |                       |
|  | max                 |                  | 2/0                   |
| Power terminal protection according to IEC/EN 60529                  |                     |                  | IP00                  |
| <b>Mechanical features</b>   |                     |                  |                       |
| Operating position   |                     |                  |                       |
|  | normal<br>allowable |                  | Vertical plan<br>±30° |

|  |                                 |                 |          |          |
|--|---------------------------------|-----------------|----------|----------|
| Fixing   |                                 |                 |          | Screw    |
| Weight   |                                 | g               | 6        |          |
| Conductor section                                  | AWG/kcmil conductor section     | max             | 2/0      |          |
| <b>Operations</b>                                  |                                 |                 |          |          |
| Mechanical life                                    |                                 | cycles          | 10000000 |          |
| Electrical life                                    |                                 | cycles          | 1100000  |          |
| <b>Safety related data</b>                         |                                 |                 |          |          |
| Performance level B10d according to EN/ISO 13489-1 |                                 |                 |          |          |
|  |                                 | rated load      | cycles   | 1100000  |
|  |                                 | mechanical load | cycles   | 10000000 |
| Mirror contacts according to IEC/EN 60947-4-1      |                                 |                 |          | yes      |
| EMC compatibility                                  |                                 |                 |          | yes      |
| <b>AC coil operating</b>                           |                                 |                 |          |          |
| Rated AC voltage at 50/60Hz, 60Hz                  |                                 |                 |          |          |
|  |                                 | min             | V        | 110      |
|  |                                 | max             | V        | 125      |
| AC operating voltage                               |                                 |                 |          |          |
|  | of 50/60Hz coil powered at 50Hz |                 |          |          |
|  | pick-up                         | min             | %Us      | 80       |
|  |                                 | max             | %Us      | 110      |
|  | drop-out                        | min             | %Us      | 20       |
|  |                                 | max             | %Us      | 60       |
|  | of 50/60Hz coil powered at 60Hz |                 |          |          |
|  | pick-up                         | min             | %Us      | 80       |
|  |                                 | max             | %Us      | 110      |
|  | drop-out                        | min             | %Us      | 20       |
|  |                                 | max             | %Us      | 60       |
|  | of 60Hz coil powered at 60Hz    |                 |          |          |
|  | pick-up                         | min             | %Us      | 80       |
|  |                                 | max             | %Us      | 110      |
|  | drop-out                        | min             | %Us      | 20       |
|  |                                 | max             | %Us      | 60       |
| AC average coil consumption at 20°C                |                                 |                 |          |          |
|  | of 50/60Hz coil powered at 50Hz |                 |          |          |
|  |                                 | in-rush         | VA       | 300      |
|  |                                 | holding         | VA       | 10       |
|  | of 50/60Hz coil powered at 60Hz |                 |          |          |
|  |                                 | in-rush         | VA       | 300      |
|  |                                 | holding         | VA       | 10       |
| Dissipation at holding ≤20°C 50Hz                  |                                 |                 | W        | 10       |
| <b>DC coil operating</b>                           |                                 |                 |          |          |
| DC rated control voltage                           |                                 |                 |          |          |
|  |                                 | min             | V        | 110      |
|  |                                 | max             | V        | 125      |
| DC operating voltage                               |                                 |                 |          |          |

|          |     |     |     |
|----------|-----|-----|-----|
| pick-up  | min | %Us | 80  |
|          | max | %Us | 110 |
| drop-out | min | %Us | 20  |
|          | max | %Us | 60  |

Average coil consumption  $\leq 20^{\circ}\text{C}$

|         |   |     |
|---------|---|-----|
| in-rush | W | 300 |
| holding | W | 10  |

**Max cycles frequency**

|                      |          |      |
|----------------------|----------|------|
| Mechanical operation | cycles/h | 2400 |
|----------------------|----------|------|

**Operating times**

Average time for Us control

in AC

Closing NO

|     |    |     |
|-----|----|-----|
| min | ms | 60  |
| max | ms | 100 |

Opening NO

|     |    |    |
|-----|----|----|
| min | ms | 25 |
| max | ms | 60 |

in DC

Closing NO

|     |    |     |
|-----|----|-----|
| min | ms | 60  |
| max | ms | 100 |

Opening NO

|     |    |    |
|-----|----|----|
| min | ms | 25 |
| max | ms | 60 |

**UL technical data**

Full-load current (FLA) for three-phase AC motor

|         |   |    |
|---------|---|----|
| at 480V | A | 96 |
| at 600V | A | 99 |

Yielded mechanical performance

for three-phase AC motor

|          |    |     |
|----------|----|-----|
| 200/208V | HP | 30  |
| 220/230V | HP | 40  |
| 575/600V | HP | 100 |

General USE

Contactor

|            |   |     |
|------------|---|-----|
| AC current | A | 160 |
|------------|---|-----|

Short-circuit protection fuse, 600V

Standard fault

|                       |    |     |
|-----------------------|----|-----|
| Short circuit current | kA | 5   |
| Fuse rating           | A  | 500 |
| Fuse class            |    | RK5 |

**Ambient conditions**

Temperature

Operating temperature

|     |                    |     |
|-----|--------------------|-----|
| min | $^{\circ}\text{C}$ | -50 |
| max | $^{\circ}\text{C}$ | 70  |

Storage temperature

|     |                    |     |
|-----|--------------------|-----|
| min | $^{\circ}\text{C}$ | -60 |
| max | $^{\circ}\text{C}$ | 80  |

Max altitude

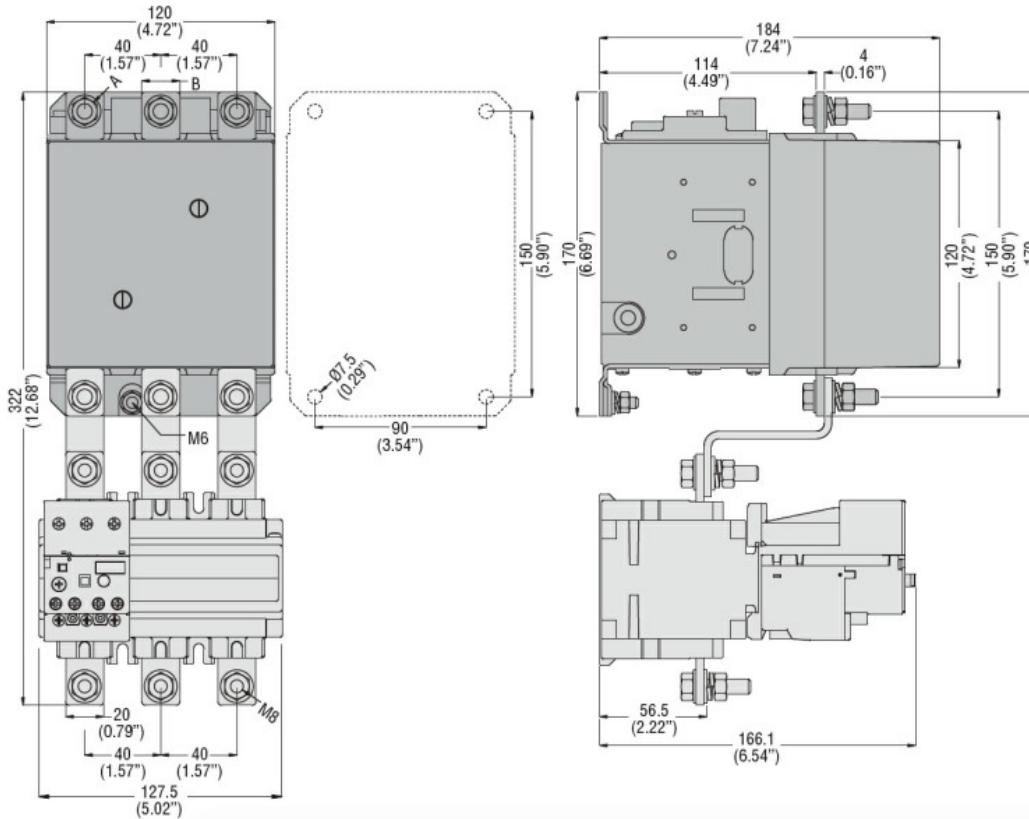
|   |      |
|---|------|
| m | 3000 |
|---|------|

**Resistance & Protection**

Pollution degree

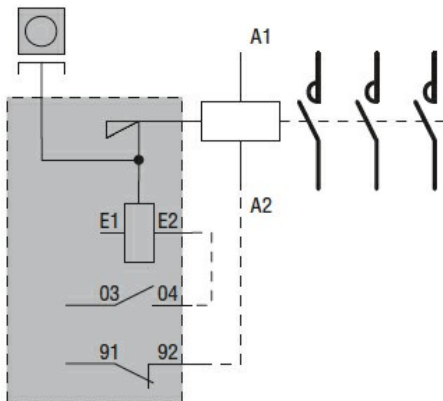
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**Dimensions**



| CONTACTOR TYPE | A  | B          |
|----------------|----|------------|
| B115           | M6 | 15 (0.59") |
| B145           | M8 | 20 (0.79") |
| B180           | M8 | 20 (0.79") |

**Wiring diagrams**



**Certifications and compliance**

**Compliance**

- CSA C22.2 n° 60947-1
- CSA C22.2 n° 60947-4-1
- IEC/EN 60947-1
- IEC/EN 60947-4-1
- UL 60947-1
- UL 60947-4-1

**Certificates**

- CCC
- cULus
- EAC

**ETIM classification**

ETIM 8.0

EC000066 -  
Power contactor,  
AC switching